UNITED STATES PATENT AND TRADEMARK OFFICE

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2161	

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Please find below and/or attached an Office communication concerning this application or proceeding.

A

	Application No.	Applicant(s)
Office Action Summary	10/084,222	SHIMOKAWA ET AL.
	Examiner	Art Unit
	Etienne P LeRoux	2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _12 January 2005_.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _21-33_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _21-33_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _12 January 2005_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☒ Certified copies of the priority documents have been received in Application No. _09/044,163_.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Status of Claims:

Claims 21-33 are pending; claims 1-20 having been canceled, and claims 30-33 are

added per the current amendment. Claims 21-33 are rejected as detailed below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 21-26 and 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over

US Pat No 5,361,202 issued to Doue (hereafter Doue) in view of US Pat No 5,504,888 issued to

Iwamoto et al (hereafter Iwamoto).

Claim 21:

Doue discloses a plurality of data areas, each of said plurality of data areas being loaded with data each for a constant time generated in time series during a certain time, the plurality of data areas being managed by the time series [Doue discloses each data record in the database for a patient has a time and date stamp, refer col 4, lines 11-12]

Doue discloses bookmark information areas respectively provided at predetermined locations in said plurality of data areas, each having a pair of bookmark information indicative of a time at which said data is loaded in a time series data piece for said constant time in each of said data areas [the time and date stamp on each record for a patient in a database reads on the claimed bookmark as a bookmark is simply a marker inserted at a specific point to which the user may return for later reference,[1] refer col 5, lines 1-10].

Doue fails to disclose state transition information indicative of a state of the data piece in said each data area, said state transition information being allowed to have one of a value indicative of an online state in which the data area is permitted to be retrieved and a value indicative of a loading state in which loading of data in the data area has not yet been completed and the data area is not permitted to be retrieved.

Iwamoto discloses state transition information indicative of a state of the data piece in said each data area, said state transition information being allowed to have one of a value indicative of an online state in which the data area is permitted to be retrieved [load completion flag, col 5, line 63] and a value indicative of a loading state in which loading of data in the data

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[1] Microsoft Computer Dictionary Fifth Edition

area has not yet been completed and the data area is not permitted to be retrieved [access inhibit flag, col 5, line 67].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Doue to include state transition information indicative of a state of the data piece in said each data area, said state transition information being allowed to have one of a value indicative of an online state in which the data area is permitted to be retrieved and a value indicative of a loading state in which loading of data in the data area has not yet been completed and the data area is not permitted to be retrieved as taught by Iwamoto for the purpose of file management of the batch process [Iwamoto, col 5, lines 30-40]. The ordinarily skilled artisan would have been motivated to modify Doue per the above for the purpose of improving the invention by increasing the speed of updating by executing in parallel a batch process with a large volume of updating without interruption of the on-line process [Iwamoto, col 1, lines 55-60].

Claim 22:

Doue discloses a plurality of data areas in which given time series data pieces each for a constant time are loaded at predetermined locations, respectively, in said database, each of said plurality of data areas being located with data generated in time series during a certain time, the plurality of data areas being managed by the time series [Doue discloses each data record in the database for a patient has a time and date stamp, refer col 4, lines 11-12].

Doue discloses the essential elements of the invention as noted above but does not disclose predetermined bookmark information areas each having a pair of bookmark information indicative of a time at which said data is loaded in a time series data piece in each of said data

areas and state transition information indicative of a state of the data piece in each data area, said

state transition information having one of a value indicative of an online state in which the data

area is permitted to be retrieved. a value indicative of a loading state in which loading of data in

each data area has not yet been completed and a value indicative that the data area is not

permitted to be retrieved. Iwamoto discloses predetermined bookmark information areas each

having a pair of bookmark information indicative of a time at which said data is loaded in a time

series data piece in each of said data areas and state transition information indicative of a state of

the data piece in each data area, said state transition information having one of a value indicative

of an online state in which the data area is permitted to be retrieved. a value indicative of a

loading state in which loading of data in each data area has not yet been completed and a value

indicative that the data area is not permitted to be retrieved [load completion flag, col 5, line 63,

access inhibit flag, col 5, line 67]. It would have been obvious to one of ordinary skill in the art

at the time the invention was made to modify Doue to include predetermined bookmark

information areas each having a pair of bookmark information indicative of a time at which said

data is loaded in a time series data piece in each of said data areas and state transition

information indicative of a state of the data piece in each data area, said state transition

information having one of a value indicative of an online state in which the data area is permitted

to be retrieved. a value indicative of a loading state in which loading of data in each data area has

not yet been completed and a value indicative that the data area is not permitted to be retrieved as

taught by Iwamoto for the purpose of file management of the batch process [Iwamoto, col 5,

lines 30-40]. The ordinarily skilled artisan would have been motivated to modify Doue per the

above such that speed of updating is increased by executing in parallel a batch process with a

large volume of updating without interruption of the on-line process [Iwamoto, col 1, lines 55-60].

Claim 23:

Doue discloses preparing a predetermined location for data in a given time series, each of said given time series having a predetermined constant time, adding in each of said given time series of said predetermined location bookmark information having bookmark information indicative of a time at which said data is loaded in a time series data piece for said predetermined constant time for said predetermined time and state transition information indicative of a state of said time series data piece for said predetermined constant time [Doue discloses each data record in the database for a patient has a time and date stamp, refer col 4, lines 11-12].

Doue discloses the essential elements of the invention as noted above but does not disclose providing, as said transition information, one of a value indicative of an online state in which the data area is permitted to be retrieved, a value indicative of a loading state in which loading of data in the data area has not yet been completed and a value indicative that the data area is not permitted to be retrieved and a value indicative of a state in which data in the data area is empty. Iwamoto discloses providing, as said transition information, one of a value indicative of an online state in which the data area is permitted to be retrieved, a value indicative of a loading state in which loading of data in the data area has not yet been completed and a value indicative that the data area is not permitted to be retrieved and a value indicative of a state in which data in the data area is empty [load completion flag, col 5, line 63, access inhibit flag, col 5, line 67]. It would have been obvious to one of ordinary skill in the at at the time the invention was made to modify Doue to include providing, as said transition information, one of a

value indicative of an online state in which the data area is permitted to be retrieved, a value

indicative of a loading state in which loading of data in the data area has not yet been completed

and a value indicative that the data area is not permitted to be retrieved and a value indicative of

a state in which data in the data area is empty as taught by Iwamoto for the purpose of file

management of the batch process [Iwamoto, col 1, lines 30-40]. The ordinarily skilled artisan

would have been motivated to modify Doue per the above such that the speed of updating is

increased by executing in parallel a batch process with a large volume of updating without

interruption of the on-line process [Iwamoto, col 1, lines 55-60].

Furthermore, Doue discloses loading [Fig 2, datasheet 52, col 4, lines 34-46] time series

data pieces for predetermined constant times in empty areas of a plurality of data areas in said

database said bookmark information having time data at which said time series data pieces are

loaded, each of said plurality of data areas being loaded with data generated in time series during

a certain time, the plurality of data areas being managed by the time series: and deciding in

response to a request for time series data with a retrieval request time to retrieve [Fig 6, col 6,

lines 45-65] a time series data from said predetermined location when said retrieval request time

is within a range of time indicated by said time data.

Claim 24:

Doue discloses preparing a predetermined location for data in a given time series, each of

said given time series having a predetermined constant time: adding in each of said given time

series of said predetermined location bookmark information having bookmark information

indicative of a time at which data is loaded in a time series data piece for said predetermined

constant time [Doue discloses each data record in the database for a patient has a time and date stamp, refer col 4, lines 11-12]

Doue discloses the essential elements of the claimed invention as noted above but does not disclose state transition information indicative of a state of said time series data piece for said predetermined constant time and start area information having a flag indicating whether the area is the final one of a plurality of areas in said database and an address area for setting an address; providing, as said state transition information, one of a value indicative of an online state in which the data area is permitted to be retrieved, a value indicative of a loading state in which loading of data in the data area has not yet been completed and a value indicative that the data area is not permitted to be retrieved. Iwamoto discloses state transition information indicative of a state of said time series data piece for said predetermined constant time and start area information having a flag indicating whether the area is the final one of a plurality of areas in said database and an address area for setting an address; providing, as said state transition information, one of a value indicative of an online state in which the data area is permitted to be retrieved, a value indicative of a loading state in which loading of data in the data area has not yet been completed and a value indicative that the data area is not permitted to be retrieved [load completion flag, col 5, line 63, access inhibit flag, col 5, line 67]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Doue to include state transition information indicative of a state of said time series data piece for said predetermined constant time and start area information having a flag indicating whether the area is the final one of a plurality of areas in said database and an address area for setting an address; providing, as said state transition information, one of a value indicative of an online state in

which the data area is permitted to be retrieved, a value indicative of a loading state in which

loading of data in the data area has not yet been completed and a value indicative that the data

area is not permitted to be retrieved as taught by Doue for the purpose of file management of the

batch process [Iwamoto, col 5, lines 30-40]. The ordinarily skilled artisan would have been

motivated to modify Doue per the above such that the speed of updating is increased by

executing in parallel a batch process with a large volume of updating without interruption of the

on-line process [Iwamoto, col 1, lines 55-60].

Furthermore, Doue discloses loading time series data pieces for predetermined constant

times in empty areas of a plurality of consecutive data areas in said database said bookmark

information having a time data at which said time series-data pieces are loaded, each of said

plurality of consecutive data areas being loaded with data generated in time series during a

certain time, the plurality of consecutive data areas being managed by the time series, raising

said flag of start area information in the final one of said plurality of consecutive data areas and

setting an address of first one of said plurality of consecutive data areas in said address area, and

deciding in response to a request for time series data with a retrieval request time. to retrieve a

time series data from said predetermined location when said retrieval request time is within a

range of time indicated by a time data in said bookmark information and-not to retrieve when

said retrieval request time is not within said range of time indicated by said time data [Fig 2,

datasheet 52, col 4, lines 34-46, Fig 6, col 6, lines 45-65]

Claim 25:

Doue discloses reading bookmark information having bookmark information indicative

of a time at which data is loaded in a time series data piece in a predetermined constant time [col

4, lines 11-12].

Doue discloses the essential elements of the claimed invention as noted above but does

not disclose state transition information indicative of a state of said time series data piece for said

predetermined constant time from a predetermined bookmark area and setting the state of said

time series data piece in said state transition information to a value indicative of a state in which

data is empty so as to write said bookmark information in said database. Iwamoto discloses state

transition information indicative of a state of said time series data piece for said predetermined

constant time from a predetermined bookmark area and setting the state of said time series data

piece in said state transition information to a value indicative of a state in which data is empty so

as to write said bookmark information in said database [col 5, lines 63-67]. It would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify Doue to

include state transition information indicative of a state of said time series data piece for said

predetermined constant time from a predetermined bookmark area and setting the state of said

time series data piece in said state transition information to a value indicative of a state in which

data is empty so as to write said bookmark information in said database as taught by Iwamoto for

the purpose of file management of the batch process [Iwamoto, col 5, lines 30-40]. The

ordinarily skilled artisan would have been motivated to modify Doue per the above such that

speed of updating is improved by executing in parallel a batch process with a large volume of

updating without interruption of the on-line process [Iwamoto, col 1, lines 55-60].

Furthermore, Doue discloses loading given time series data pieces for given

predetermined constant times in empty areas of a plurality of data areas in said database, each of

said plurality of data areas being loaded with data generated in time series during a certain time,

the plurality of data areas being managed by the time [Fig 2, col 4, lines 35-46].

Furthermore, the combination of Doue and Iwamoto discloses writing bookmark

information having bookmark information indicative of a time corresponding to a time series

data piece of said predetermined constant time and state transition information indicative of an

online state of said time series data piece for said predetermined time in said predetermined

bookmark area [Doue discloses time series data and Iwamoto discloses state information as

noted above]

Furthermore, Doue discloses deciding, in response to a request for time series data with a

retrieval request time to retrieve a time series data from said predetermined location when said

retrieval request time is within a range of time indicated by time data in said bookmark

information and not to retrieve when said retrieval request time is not within said range of time

indicated by said time data [Fig 6, col 6, lines 45-55]

Claim 26:

Doue discloses cumulating repeatedly applied time series data pieces in a cumulative

storage area until the cumulative data reach total data for said predetermined constant time [Fig

2, col 4, lines 35-45].

Furthermore, Doue discloses adding to a data piece in said cumulative data storage area,

bookmark information having bookmark information indicative of a time at which said data is

loaded in said data piece for said predetermined constant time [period of time, Fig 2, col 4, lines 35-45].

Doue discloses the essential elements of the claimed invention as noted above but does not disclose state transition information indicative of a state of said time series data piece for said predetermined constant time. Iwamoto discloses state transition information indicative of a state [col 5, lines 30-57]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Doue to include state transition information indicative of a state of said time series data piece for said predetermined constant time based on the teaching of Iwamoto for the purpose of file management of the batch process [Iwamoto, col 5, lines 30-40]. The skilled artisan would have been motivated to modify Doue per the above such that the speed of updating is improved by executing in parallel a batch process with a large volume of updating without interruption of the on-line process [Iwamoto, col 1, lines 55-60].

Furthermore, Doue discloses loading resulting data pieces in said plurality of data areas in said database, each of said plurality of data areas being loaded with data generated in time series during a certain time, the plurality of data areas being managed by the time series [Fig 2, col 4, lines 35-45]

Claim 28:

Doue disclose pointing, in response to a retrieval request requesting data of a constant time in time series between a first time and a second time, to a segment of a database which stores a data oldest in time series between said first time and said second time in a predetermined position in said database [col 6, lines 45-55].

Furthermore, Doue discloses acquiring time information from a bookmark information residing at a predetermined position of said segment to obtain status information [col 6, lines 45-55].

Doue discloses the essential elements of the claimed invention as noted above but does not disclose status information indicating a state of loading of data in said database. Iwamoto discloses status information indicating a state of loading of data in said database [col 5, lines 30-57]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Doue to include status information indicating a state of loading of data in said database based on the teaching of Iwamoto for the purpose of file management of the batch process [Iwamoto, col 5, lines 30-40]. The skilled artisan would have been motivated to modify Doue per the above such that the speed of updating is improved by executing in parallel a batch process with a large volume of updating without interruption of the on-line process [Iwamoto, col 1, lines 55-60].

Furthermore, Doue discloses seeking succeeding segments to find segments of time series after said first time based on bookmarks of said succeeding segments until a segment of time series at an end time series before said second time among said segments having status of loading [Fig 2, col 4, lines 35-45].

Furthermore, Doue discloses in response to a request for time series data with a retrieval request time to retrieve a time series data from said predetermined location when said retrieval request time is within a range of time indicated by a time data in said bookmark information and not to retrieve when said retrieval request time is not within said range of time indicated by said time data [col 6, lines 45-55].

Claim 29:

Doue discloses means, in response to a retrieval request requesting data for a constant

time in time series between a first time and a second time, for pointing a segment of a database

which stores a data oldest in time series between said first time and said second time [Fig 2, col

4, lines 35-45]

Doue discloses means for acquiring time information from a bookmark information

residing at a predetermined position of said segment to obtain status information [Fig 6, col 6,

lines 45-55]

Doue discloses the essential elements of the claimed invention as noted above but does

not disclose status information indicating a state of loading of data in said database. Iwamoto

discloses status information indicating a state of loading of data in said database [col 5, lines 30-

57]. It would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify Doue to include status information indicating a state of loading of data in said

database based on the teaching of Iwamoto for the purpose of file management of the batch

process [Iwamoto, col 5, lines 30-40]. The skilled artisan would have been motivated to modify

Doue per the above such that the speed of updating is improved by executing in parallel a batch

process with a large volume of updating without interruption of the on-line process [Iwamoto,

col 1, lines 55-60].

Doue discloses means for seeking succeeding segments to find segments of time series

after said first time based on bookmarks of said succeeding segments until a segment of

time series at an end time series before said second time among said segments

having status of loading [Fig 2, col 4, lines 35-45]

Doue discloses means for deciding in response to a request for time series data with a retrieval request time to retrieve a time series data from said predetermined location when said retrieval request time is within a range of time indicated by a time data in said bookmark information and not to retrieve when said retrieval request time is not within said range of time indicated by said time data. [Fig 6, col 6, lines 45-55]

Claim 30:

The combination of Doue and Iwamoto discloses the elements of claim 24 as noted above and furthermore, Iwamoto discloses deciding, in response to a request to delete data from said plurality of consecutive data areas with a delete data time, whether said delete data time of said request is within a range of time indicated by a time data in said bookmark information, and setting said state transmission information of said bookmark information to a state indicative of data empty [col 8, lines 30-35].

Claim 31:

The combination of Doue and Iwamoto discloses the elements of claim 29 as noted above and furthermore, Iwamoto discloses means for deciding, in response to a request to delete data from said plurality of consecutive data areas with a delete data time, whether said delete data time of said request is within a range of time indicated by a time data in said bookmark information, and means for setting said state transmission information of said bookmark information to a state indicative of data empty [col 8, lines 29-35].

Claim 32:

Doue discloses preparing a predetermined location for data in given time series, each of said given time series having a predetermined constant time [Fig 2, col 4, lines 34-45];

Doue discloses adding in each of said given time series of said predetermined location bookmark information having bookmark information indicative of a time at which data is loaded in a time series data piece for said predetermined constant time of said time series data piece for said predetermined constant time and start area information having a flag indicating whether the area is the final one of a plurality of areas in said database and an address area for setting an address [Fig 2, col 4, lines 34-45]

Doue discloses the essential elements of the claimed invention as noted above but does not disclose status information indicating a state of loading of data in said database. Iwamoto discloses status information indicating a state of loading of data in said database [col 5, lines 30-57]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Doue to include status information indicating a state of loading of data in said database based on the teaching of Iwamoto for the purpose of file management of the batch process [Iwamoto, col 5, lines 30-40]. The skilled artisan would have been motivated to modify Doue per the above such that the speed of updating is improved by executing in parallel a batch process with a large volume of updating without interruption of the on-line process [Iwamoto, col 1, lines 55-60].

Iwamoto discloses providing, as said state transition information, one of a value indicative of an online state in which the data area is permitted to be retrieved, a value indicative of a loading state in which loading of data in the data area has not yet been completed and a value indicative that the data area is not permitted to be retrieved [col 5, lines 30-57].

Doue discloses loading time series data pieces for predetermined constant time in empty areas of a plurality of consecutive data areas in said database said bookmark information having

time data at which said time series data pieces are loaded, each of said plurality of consecutive

data areas being loaded with data generated in time series during a certain time, the plurality of

consecutive data areas being managed by the time series [Fig 2, col 4, lines 35-45].

Iwamoto disclose raising said flag of start area information in the final one of said

plurality of consecutive data areas and setting an address of first one of said plurality of

consecutive data areas in said address area [col 5, lines 30-57].

Iwamoto discloses deciding, in response to a request to delete data with a delete data

time, whether said delete data time of said request is within a range of time indicated by a time

data in said bookmark information, and setting said state transmission information of said

bookmark information to a state indicative of empty of data [col 8, lines 30-35].

Claim 33:

Doue discloses means for preparing a predetermined location for data in a given time

series, each of said given time series having a predetermined constant time [Fig 2, col 4, lines 36-

45]

Doue discloses means for adding in each of said given time series of said predetermined

location bookmark information having bookmark information indicative of a time at which data

is loaded in a time series data piece for said predetermined constant time and start area

information having a flag indicating whether the area is the final one of a plurality of areas in

said database and an address area for setting an address [Fig 2, col 4, lines 36-45]

Doue discloses the essential elements of the claimed invention as noted above but does

not disclose status information indicating a state of loading of data in said database. Iwamoto

discloses status information indicating a state of loading of data in said database [col 5, lines 30-

57]. It would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify Doue to include status information indicating a state of loading of data in said

database based on the teaching of Iwamoto for the purpose of file management of the batch

process [Iwamoto, col 5, lines 30-40]. The skilled artisan would have been motivated to modify

Doue per the above such that the speed of updating is improved by executing in parallel a batch

process with a large volume of updating without interruption of the on-line process [Iwamoto,

col 1, lines 55-60].

Iwamoto discloses means for providing, as said state transition information, one of a

value indicative of an online state in which the data area is permitted to be retrieved, a value

indicative of a loading state in which loading of data in the data area has not yet been completed

and a value indicative that the data area is not permitted to be retrieved [col 5, lines 30-57].

Doue discloses means for loading time series data pieces for predetermined constant time

in empty areas of a plurality of consecutive data areas in said database said bookmark

information having time data at which said time series data pieces are loaded, each of said

plurality of consecutive data areas being loaded with data generated in time series during a

certain time, the plurality of consecutive data areas being managed by the time series [Fig 2, col

4, lines 35-45].

Iwamoto discloses means for raising said flag of start area information in the final one of

said plurality of consecutive data areas and setting an address of first one of said plurality of

consecutive data areas in said address area [col 5, lines 30-57].

Iwamoto disclose means for deciding, in response to a request to delete data with a delete

data time, whether said delete data time of said request is within a range of time indicated by a

time data in said bookmark information [col 8, lines 30-35].

Iwamoto discloses means for setting said state transmission information of said

bookmark information to a state indicative of empty of data [col 8, lines 30-35].

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination

of Doue and Iwamoto and further in view of US Pat No 5,627,783 issued to Miyauchi (hereafter

Miyauchi).

Claim 27:

Doue discloses a processor having a memory for storing data for a certain time and a

clock for reading times at which said data are applied, the data in the memory being managed by

time series; and a database connected to said processor and having bookmark information

indicative of a time at which said data is loaded in a time series data piece for a predetermined

constant time [Figs 2-5 and col 4, lines 25-46];.

Doue discloses the elements of claim 27 as noted above.

Doue fails to disclose state transition information indicative of a state of said time series

data piece of said predetermined constant time and said time series data pieces for said

predetermined constant times, said state transition information having one of a value indicative

of an online state in which the data area is permitted to be retrieved and a value indicative of a

loading state in which loading of data in the data area has not yet been completed and the data

area is not permitted to be retrieved.

Iwamoto discloses state transition information indicative of a state of said time series data piece of said predetermined constant time and said time series data pieces for said predetermined constant times, said state transition information having one of a value indicative of an online state in which the data area is permitted to be retrieved [load completion flag, col 5, line 63], a value indicative of a loading state in which loading of data in the data area has not yet been completed and the data area is not permitted to be retrieved [access inhibit flag, col 5, line 67]./file update authorization flag, col 5, lines 30-40].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Doue to include state transition information indicative of a state of said time series data piece of said predetermined constant time and said time series data pieces for said predetermined constant times, said state transition information having one of a value indicative of an online state in which the data area is permitted to be retrieved, a value indicative of a loading state in which loading of data in the data area has not yet been completed and the data area is not permitted to be retrieved as taught by Iwamoto for the purpose of file management of the batch process [Iwamoto, col 5, lines 30-40]. The ordinary skilled artisan would have been motivated to modify Doue per the above for the purpose of eliminating the contention of resources between online processes and batch processes and thus speeding up the process of updating of the files [Iwamoto, abstract].

The combination of Doue and Iwamoto discloses the elements of the claim 27 as noted above.

The combination of Doue and Iwamoto fail to disclose a value indicative of a state in which data in the data area is empty.

Miyauchi discloses a value indicative of a state in which data in the data area is empty [col 5, line 63 through col 6, line 8].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Doue and Iwamoto to include a value indicative of a state in which data in the data area is empty as taught by Miyauchi for indicating a memory location which is capable of being written to. The ordinarily skilled artisan would have been

motivated to modify the combination of Doue and Iwamoto per the above for the purpose of indicating which memory area is empty because flash memory is incapable of being over-written [Miyauchi, col 6, lines 3-8].

Response to Arguments

Applicant's arguments filed 1/12/2005 have been fully considered but they are not persuasive.

<u>Applicant Argues:</u>

Applicant states in the paragraph linking pages 19 and 20 "The examiner asserts that Doue discloses bookmark information respectively provided at predetermined locations in a plurality of data areas each having a pair of bookmark information indicative of a time in which the data is loaded in a time series data piece for the constant time in each of the data areas, at col. 5, lines 1-10. However, these portions of Doue merely disclose the duration of a patient's stay is approximated by the difference between the earliest data and the timestamp of the data records

for the patient and either the current time or, if the patient has been discharged, the latest date

and timestamp of the records for the patient. A time and date stamp on a record has nothing to do

with a bookmark, as recited in the claims of the present application. Doue merely discloses the

date and time information existing in a record of a patient that can be electrically searched. This

is not bookmark information. Further, this is not bookmark information areas respectively

provided at predetermined locations in a plurality of data areas. Moreover, these portions of

Doue do not disclose or suggest each plurality of data areas having a pair of bookmark

information indicative of a time in which the data is loaded in a time series data piece for the

constant time in each of the data areas, as recited in the claims of the present invention. The date

and timestamp of the data records for the patient are merely searched and compared in order to

be found and displayed.

Examiner Responds:

Examiner is not persuaded. Bookmark information is clearly defined in the specification

of the present application, for example paragraph 10 states:

adding, to a given time series data piece for a predetermined time, bookmark information having
bookmark information indicative of the corresponding time and state transition information
indicative of a state of the time series data piece for the predetermined time.

Furthermore, paragraph 27 of the specification of the present application states :

In the present invention, the database is divided into segments which are each minimum blocks
for storage area management and time series data pieces are stored in the segments. When data is
loaded on the database, a time at which the data is loaded is stored as a bookmark at a
predetermined location in a start segment from which the addition starts with the database.
Thanks to the bookmark, when retrieval of time interval designation is carried out, the retrieval
range can be narrowed physically by utilizing the bookmark.

MPEP § 2106 requires office personnel to give claims their broadest reasonable

interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44

USPQ2d 1023, 1027-28 (Fed. Cir 1997). Based on above disclosure by applicant, examiner

interprets the term bookmark as an entity which includes time data. This time data is the time

when data is loaded and stored in the database. Interpreting time data as a bookmark is a

reasonable interpretation because the Microsoft Dictionary defines bookmark simply as a marker

inserted at a specific point to which the user may return for later reference. The disclosure by

Doue supports above interpretation of bookmark as being a marker because Doue discloses in

column 7, lines 20-25 that a user can retrieve and display data corresponding to the desired date

and time, refer step 110 of Figure 56 and Figure 2, length of stay timeline 50. Doue discloses

that the time data marks a record such that a user can more speedily and accurately retrieve a

patient record which was entered into a database. Examiner notes that applicant includes a

second component to the term bookmark, i.e., state information. State information is further

considered below.

Applicant Argues:

Applicant states in the second paragraph on page 20: "The examiner admits that Doue

fails to disclose or suggest state transition information indicative of a state of the data piece in

each data area, the state transition information being allowed to have different values, but asserts

that Iwamoto et al, discloses these limitations by the load completion flag of Iwamoto et al. at

col. 5, line 63 and the access inhibit flag of Iwamoto et al. at col. 5, line 67. However, these

portions of Iwamoto et al. merely disclose a load completion flag for indicating the completion

of load to the extended storage, and an access inhibit flag indicating the page in the extended

storage which cannot be accessed. This is not state transition information being allowed to have

one of a value indicative of an online state in which the data is permitted to be retrieved, a value

indicative of a loading state in which loading of data in the data area has not yet been completed,

and a value indicative that the data area is not permitted to be retrieved, as recited in the claims

of the present invention. The completion of load flag in Iwamoto et al. is not related to an online

state, as recited in the claimed of the present application. Further, the access inhibit flag in

Iwamoto et al., indicating that the page cannot be accessed, does not disclose or suggest a

loading state in which loading of data has not yet been completed. These portions of Iwamoto et

al., do not disclose the limitations in the claims of the present application.

Examiner Responds:

Examiner is not persuaded. Iwamoto disclose in column 5, lines 30-57 the following:

File management tables 191 and 192 in the present embodiment are explained with reference to
FIG. 19. The file management table 191 (or 192) is secured in the data processing unit for each
file 21 and it includes a file management information field 1901, extended storage management
information fields 1902 and 1903 and a bit map field 1904. The file management information
field includes an extended storage allocation flag for identifying a file having a designation to
allocate to the extended storage, a file update authorization flag for managing an update
authorization for the file 21, an address of the extended storage management information field
1902, and an address of the extended storage management information field 1903 for the batch
process (which is identical to the address of the extended storage management information field
when the extended storage dedicated to the batch process is not separately provided). The
extended storage management information field 1902 (or 1903) includes an extended storage
occupation status flag for indicating the occupation by the batch process of the area 11 (or 12) of
the extended storage 1 corresponding to the file 21, an extended storage access status flag for
managing the update in-process status of the extended storage, an extended storage identifier for
identifying the area in the extended storage, an extended storage allocation size for storing a size
of the area of the extended storage allocated to the file, and a bit map address for storing the
address to the bit map for managing the page status in the extended storage. The page represents
a frame in which an index record stores a data record in the file. For example, the page size is 4K
bytes. The bit map 1904 of the present embodiment is explained with reference to FIG. 20. The
bit map 1904 is held in the data processing unit or the extended storage for each area of the
extended storage. Each page of the file 21 includes a load completion flag for indicating the
completion of load to the extended storage, a batch updated flag indicating the page in the

extended storage which was updated in the batch process, and an access inhibit flag indicating the page in the extended storage which cannot be accessed. It further includes a bit train for each page of the file 21, one for each page of the file 21.

The specification of the present application states in paragraph 49:

[0049] As shown in FIG. 4 useful to explain the bookmark information area 22, the bookmark information area includes a time information area 23 for storing information concerning a time which is specific to data stored in the segment 20 and which is delivered out of the clock 9 and a status flag area 24 for storing status flag information indicative of a shifting or transition state (to be described below) of the segment 20. The shifting or transition state is classified into three states or modes including "online" indicating that the data storage area is accessible, "loading" indicating that data is now being inserted and "empty" indicating that no data is present in the data storage area. The status of the segment 20 shifts from one mode or state to another.

Examiner maintains that both applicant and Doue disclose a flag that indicates the status of the data record in the database, whether it be accessible or not accessible. Examiner maintains that Iwamoto reads on the claim limitation "state transition information indicative of a state of the data piece in said each data area, said state transition information being allowed to have one of a value indicative of an online sate in which the data area is permitted to be retrieved, a value indicative of a loading state I which loading of data in the data area has not yet been completed and a value indicative that the data area is not permitted to be retrieve."

Applicant Argues:

Applicant states in the fourth paragraph on page 22 " Applicants submit that none of the cited references, taken alone or in any roper combination, disclose, suggest or render obvious the limitations in the combination of claim 27 of, inter alia, a database managing system that includes a processor where the processor includes means for deciding, in response to a request for time series data with a retrieval request time, to retrieve a time series data from the predetermined location when the retrieved request time is within a range of time indicated by a

time data in the bookmark information and not to retrieve when the retrieval request time is not

within the range of time indicated by the time data. As noted previously, neither Doue nor

Iwamoto et al disclose or suggest these limitations in the claims of the present application.

Miyauchi does not overcome the substantial defects noted previously regarding Doue and

Iwamoto et al.

Examiner Responds:

Examiner is not persuaded. Applicant is referred to supra response(s) by examiner

regarding the claim limitations mapped to Doue and Iwamoto et al. Furthermore, In response to

applicant's arguments against the references individually, one cannot show nonobviousness by

attacking references individually where the rejections are based on combinations of references.

See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091,

231 USPQ 375 (Fed. Cir. 1986).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne P LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Etienne LeRoux

5/5/2005

MOHAMMAD ALI
PRIMARY EXAMINER